

REMARKS

This amendment is being filed along with a Request for Continued Examination (RCE) in response to the final Office Action dated February 18, 2010. Various claims are amended as shown. No new matter has been added. With this filing, claims 1-5, 7-11, 13-31, and 33-35 are pending in the application.

I. Allowable subject matter

The Examiner is thanked for indicating that claims 15 and 19 would be allowable if rewritten in independent form. The Examiner is also thanked for indicating that claims 9 and 11 would be allowable if combined. Continued indication of allowability of these claims in view of the amendments filed herewith would be very much appreciated.

II. Discussion of the claims and cited references

The final Office Action rejected claims 1-6, 9-11, 13-14, 17-18, 20-22, 24-29, and 32-35 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mankude (U.S. Patent No. 6,795,866) in view of Egevang (U.S. Patent Application Publication No. 2003/0081605) and in further view of Basso (U.S. Patent No. 7,065,086). Claims 7, 16, and 30 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Mankude in view of Egevang and Basso, and in further view of Iny (U.S. Patent Application Publication No. 2002/0061030). Claims 8, 23, and 31 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mankude in view of Egevang and Basso, and further in view of Malagrino (U.S. Patent No. 6,714,985).

For the reasons set forth below, these rejections are respectfully traversed. It is therefore kindly requested that the Examiner reconsider and withdraw the rejections in view of the claims as amended herein.

A. Independent claim 1

Independent claim 1 as presented herein recites, *inter alia*, “***if the received packet fragment is determined to be the head fragment*** of said packet: ***generating***, by said network device, ***a session associated with the head fragment***; processing, by said network device, the

head fragment to ***determine a destination address*** for said head fragment, ***said generated session having a period of time to store forwarding information, including said determined destination address***, for said packet or a fragment thereof” (emphasis ours). Some of these recitations are derived from subject matter in the claims that were indicated to be allowable. It is respectfully submitted that these recitations of claim 1 are not taught by the cited references.

For example, page 3 (lines 4-14) of the final Office Action cites the “holder object” in column 6, lines 28-36 and column 7, lines 13 *et seq.* of Mankude as allegedly corresponding to “generating a session.” However, it is respectfully submitted that these and other passages of Mankude teach a holder object that is different than the “session” recited in claim 1. Column 6, lines 28-36 and column 7, lines 13 *et seq.* of Mankude are reproduced below (emphasis ours):

“Holder object 410 also includes a fragment pointer 416, which points to a linked list of packet fragments (or pointers to packet fragments) that have not been forwarded to the destination node. ***Note that packet fragments can queue up in holder object 410 if they are received before the first packet fragment is received.*** Upon receiving the first packet and determining the destination node, the system forwards the queued packet fragments to the destination node...***The system starts by receiving a packet fragment 300 (step 502). The system uses packet ID field 306 from packet fragment 300 (and possibly source IP address 302, destination IP address 304 and a protocol specifier) to lookup an entry (holder object) within packet forwarding data structure 400 (step 504).*** This allows the system to determine if an entry exists for packet fragment 300 (step 506).

If an entry does not exist for packet fragment 300 within packet forwarding data structure 400, the system creates a holder object and inserts the holder object into packet forwarding data structure 400 (step 508). The system also initializes a timer associated with the holder object. When this timer expires, the holder object is removed from packet forwarding data structure 400.

Next, the system determines if the fragment is a first fragment of the packet, which contains the TCP header (step 510). If not, the system links the fragment into the holder object associated with the packet so that the fragment can be sent to the destination node at a later time, when the destination node becomes known (step 518)."

Thus, it is abundantly clear from the above-quoted passages that Mankude generates his holder object *before* he receives his head fragment ("a first fragment of the packet, which contains the TCP header"). For instance, Mankude states that "packet fragments can *queue up in holder object 410* if they are received *before the first packet fragment* is received" (emphasis ours), which clearly teaches that the holder object 410 has already been generated before the first fragment is received. Such teachings of Mankude are different than "*if the received packet fragment is determined to be the head fragment* of said packet: *generating*, by said network device, *a session associated with the head fragment*" (emphasis ours) of claim 1.

Further from the above, Mankude states that "The system *starts by receiving a packet fragment 300* (step 502). The system uses packet ID field 306 from packet fragment 300...to *lookup an entry (holder object)* within packet forwarding data structure 400 (step 504)" (emphasis ours). This passage clearly teaches that at the very *beginning* ("starts") when he receives a packet fragment 300, he is already performing a "lookup" of a holder object, and thus the holder object is presumed to have been generated already before the head fragment has been received. Such teachings of Mankude are different than "*if the received packet fragment is determined to be the head fragment* of said packet: *generating*, by said network device, *a session associated with the head fragment*" (emphasis ours) of claim 1.

Still further from the above, Mankude states that "*If an entry does not exist for packet fragment 300* within packet forwarding data structure 400, the system *creates a holder object*...Next, the system *determines if the fragment is a first fragment of the packet*, which contains the TCP header (step 510)" (emphasis ours). These passages clearly teach that the holder object is created first before a determination is made whether the fragment 300 is the head fragment. Such teachings of Mankude are different than "*if the received packet fragment is*

determined to be the head fragment of said packet: *generating*, by said network device, *a session associated with the head fragment*” (emphasis ours) of claim 1.

The other references do not cure the deficiencies of Mankude. For example, column 11, line 44 *et seq.* of Basso teaches a “Packet Cache Control Block” (PCCB) that is created even before a first fragment (head fragment) is received. Hence, Basso is similar to Mankude.

Therefore in view of at least the above reasons, it is respectfully submitted that claim 1 is allowable over Mankude, whether singly or in combination with the other references.

B. Other independent claims

The other independent claims 9, 11, 13, 17, 20, 28, and 33 as presented herein contain recitations generally similar to the recitations of claim 1 pertaining to a “session,” with some varying language amongst the claims. By way of analogy with respect to the arguments presented above, it is respectfully submitted that claims 9, 11, 13, 17, 20, 28, and 33 are allowable.

C. Independent claims 11 and 33

Independent claims 11 and 33 are further allowable in view of other recitations contained therein. For example, claim 11 recites, *inter alia*, “*overwriting a destination address field* of said any corresponding non-head fragment *with said obtained destination address*” (emphasis ours). Claim 33 recites, *inter alia*, “*overwrite of a destination address field* of said any corresponding non-head fragment *with said obtained destination address*” (emphasis ours).

It is again argued herein that such recitations are not taught by the cited references. For example and as previously argued in prior responses, Mankude describes copying a “unique value” into the “identification field” of the packet. The “unique value” of Mankude is a packet ID that identifies the packet to which the fragment belongs, and such packet ID is *NOT* a *destination address* that is overwritten into a *destination address field*. Stated in another way, Mankude copies a “packet ID” into an “identification field” of a packet, whereas

claim 11 performs overwriting a “destination address” into a “destination address field” of a fragment.

On page 10 (Response to Arguments section), the final Office Action stated the following (emphasis ours):

“The examiner suggests that Mankude does read on the above since a *unique value*, based on the header, is *copied into those non-head fragments* so that all the non-head fragments can be *linked* eventually to the destination where the header will be...Such ‘copying’ of the unique value, which leads to the header destination, is deemed to be an action of *overwriting...destination fields* in the non-head fragments...”

As clearly acknowledged by the final Office Action, Mankude copies his “unique value” into the non-head fragments in order to enable the fragments to be “linked.” However, the final Office Action seems to continue to fail to appreciate that Mankude involves copying the “unique value” (which is a packet ID and *not* a “destination address”) into an “identification field” (which is *not* a “destination address field”). Indeed, the above-quoted passage from the final Office Action is based on an alleged “destination field” in Mankude rather than a “destination *address* field” (emphasis ours) as recited in claim 11--the final Office Action is conveniently and erroneously disregarding the term “address” in “destination address field” recited in claim 11.

In view of such differences, it is respectfully submitted that claim 11 is further allowable over the cited references, whether singly or in combination. Claim 33 is allowable by way of analogy.

D. Dependent claims 7, 16, 30, and 35

Dependent claim 7 as presented herein recites, *inter alia*, “*said destination address* being *located* at a receiver end *outside of an exit point of said network device*” (emphasis ours). In rejecting claim 7, page 8 of the final Office Action relies upon Iny.

However, Iny does not teach at least the above-quoted recitations of claim 7. More particularly, paragraph [0027] of Iny clearly teaches that the destination-id 208 “indicates the destination output port of the packet” (emphasis ours). Thus, the destination address in Iny’s “routing tag” is the destination address of the output port of his packet switching device 10. Stated in another way, the destination address of Iny is *located at/in his device 10*. In contrast, claim 7 requires the destination address to be located “outside of an exit point of said network device.”

In view of at least these reasons, claim 7 is thus allowable. Claims 16, 30, and 35 are allowable by way of analogy.

III. Conclusion

If there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 407-1574.

The Director is authorized to charge any additional fees due by way of this response, or credit any overpayment, to our Deposit Account No. 500393.

All of the claims remaining in the application are believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited

Respectfully submitted,
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